

THE SOUTHSIDER



Volunteer educators, citizen scientists and stewards helping Virginia conserve and manage natural resources

The Summer Tanager



Male



Female

The Summer Tanager is a medium-sized songbird that may be a relative to cardinals. Their preferred breeding habitats include open but wooded areas, including oak forests throughout the United States. During winter months, the Summer Tanager migrates south to Mexico, Central America and northern South America. This bird is rarely seen in Western Europe. Food is foraged high in the trees, and insects are also caught in-flight. Diets include bees, wasps and berries. Nests are built in a cup shape on horizontal tree branches. The conservation rating for the Summer Tanager is Least Concern.

Breeding and Nesting

Three to five brown marked, light blue or green eggs are laid in a nest made of grass, stems, and moss, lined with fine grass, and built 10

to 35 feet above the ground on a horizontal limb of an oak or pine. Incubation ranges from 11 to 12 days and is carried out by the female.

Foraging and Feeding

Feeds mainly on insects, including bees, wasps, caterpillars, grasshoppers, dragonflies, beetles, and cicadas. Forages in the tops of trees by gleaning from twigs and leaves; occasionally hovers at leaf clusters.

Readily Eats

Safflower, Apple Slices, Suet, Millet, Peanut Kernels, Fruit

The Scarlet Tanager



Male



Female

The Scarlet Tanager has a large range, estimated globally at 2,600,000 square kilometers. Native to the Americas and nearby island nations, this bird prefers temperate, subtropical, or tropical forest ecosystems. The global population of this bird is estimated at 2,200,000 individuals and does not show signs of decline that would necessitate inclusion on the IUCN Red List. For this reason, the current evaluation status of the Scarlet Tanager is Least Concern.

Breeding and Nesting

Two to five blue green eggs with brown marks are laid in a loose nest made of grass, rootlets, forbs, and twigs built on a horizontal branch well out from the trunk, 20 to 30 feet above the ground. Incubation ranges from 13 to 14 days and is carried out by the female.

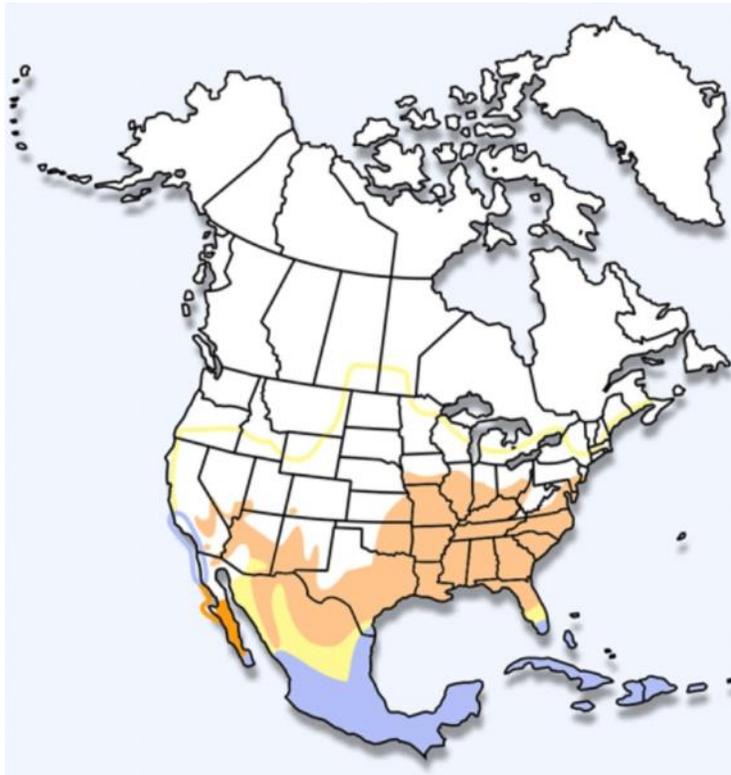
Foraging and Feeding

Feeds on insects, fruits, berries, and buds. Forages high in trees, but may seek prey on the ground, or catch insects in the air.

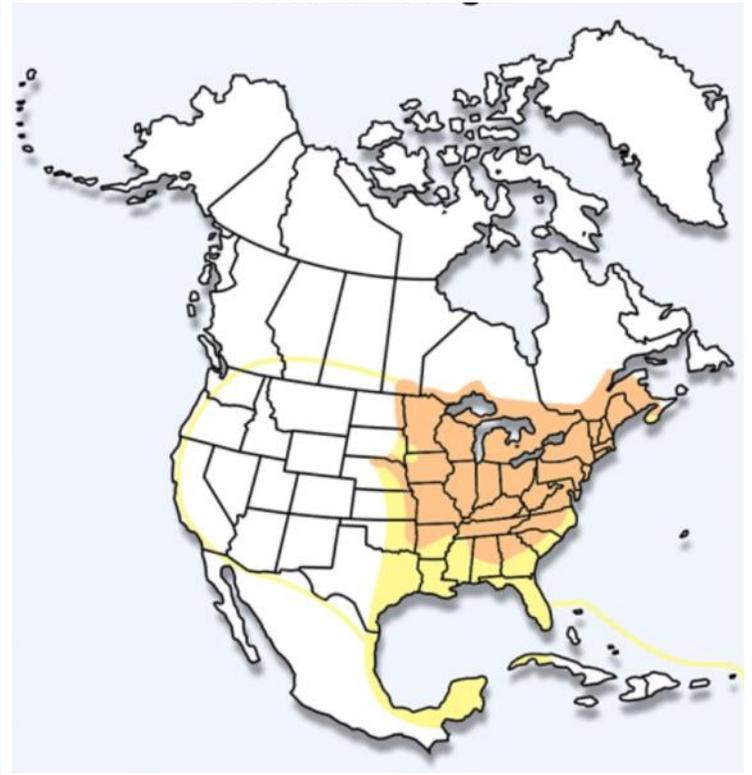
Readily Eats

Safflower, Apple Slices, Suet, Millet, Peanut Kernels, Fruit

Summer Tanager



Scarlet Tanager



 Summer

 Migration

 Year-round

 Spring Migration

 Winter

 Fall Migration

Vocalization

Summer Tanager: Song is highly variable, but generally consists of five or more phrases each with two to four notes. Call is a harsh, descending "pituck" or "tipi-tuck-i-tuck."

Scarlet Tanager: Song is a series of short phrases alternately high and low in pitch "querit, queer, query, querit, queer." Call is "chip-churr", with the first note higher in pitch.

Contributed by Wayne Jones

Information sourced from iBird PRO App





Congratulations to Historic Southside Chapter basic training Cohort VIII

On May 23rd awards, certificates, and name badges were presented to Cohort VIII class which included: Lenora Porter, Wayne Martin, Kelly Hengler, Don Porter, Karen Poulter, Alycia Knowlton, Trina Fountain, Michelle Reynolds, David Reynolds, Cathy Cupp, Jo Weaver, Barron Grant, Richard Grant, and Dawn Gunn.

Special thank-you to Steve Anderson for doing a splendid job of
leading the class!

Living Off The Grid

By Jo Weaver

I recently heard that the “Solar Design Specialist” who worked on our new system said, “Jo Weaver has a lot of experience living off the grid.” I puzzled over this comment as I was unclear what it meant. Truth be told, I frequently forget that other people live differently than I do. As I thought about it, I ran across an article on how to save energy and saw that there were quite a few things that went along with my experience of living off the grid.

I have lived without a dryer (appliance) for 22 years. Initially, the decision was made because of the amount of electricity an electric dryer draws. (It might have been possible for our original system to handle a gas dryer, which would have used fossil fuel, and for whatever reason a decision was made to rely on “air drying.”) This decision played out with a clothesline outside and a wooden rack that would hold an entire load of wash inside. Within these parameters, more attention needed to be paid with regards to successfully completing washing and drying tasks.

Just yesterday, I was wanting to wash the bed linens and trade out the winter bedspread for the summer one. As we were in the midst of a period of rain every day I started working on my plan of attack. I first thought I would do the bedspread and as it was too heavy to hang on the line, I would hang it on the rack inside. As I continued to think about the task, it occurred to me to do the linens first, making sure they would dry on the line (I could move them to the rack if need be) and then move on to the bedspread if the rack was available.

As luck would have it, the beautiful day dried the linen right off and I was able to get the bedspread up on the rack with the promise of a low humidity night that would expedite the drying process. All of this is to say, I spend more conscious attention to the particulars of washing and drying than I did when I lived in Virginia Beach and would move clothes from the washer to dryer and back to their places with little thought.

I had to laugh, shortly after my husband’s death, I failed to fully consider my clothes situation and found myself without clean underwear for my next day’s work. I did a load of wash, hung most of it on the rack (it was winter and drying clothes inside helps put moisture in the air of our wood heated home), and one lonely piece of underwear in a baking dish in the gas oven with a pilot light. I felt like I was back in college doing what I had heard some of the guys did to have clean underwear. I am happy to report the pilot light in a gas stove can dry one well spun (in the washer) piece of women’s underwear in the overnight hours. (Men’s underwear may require different drying times. Perhaps someone with experience could shed some light.) And the adventure continues.



Upcoming Meetings

7/9	6:30	IOW Extension demo room	Joint VMN & VMG meeting
8/6	6PM	Extension office	Board Meeting
9/28	TBD	Extension office	Meeting/picnic
11/12	6PM	Extension office	Board Meeting
12/12	6PM	IOW Ruritan Hall	Christmas meeting/dinner.

Native plant giveaway at the Windsor Library Pollinator Garden

Mary Catherine Foster and Brenda Peters hosted a native plant giveaway at the Windsor Library Pollinator Garden on May 4th, and another at the IOW Courthouse Native Pollinator Garden on May 8th. The plants were offspring collected from both gardens and were used to encourage people to plant native and help our environment. A total of 116 plants were given away and a total of \$66.10 was donated by enthusiastic and thankful participants to help further our efforts.




Plant More Natives™

Chippokes Plantation State Park

Acoustic Bat Monitoring (evenings March-October; this is a driving sector we capture data on species and active areas that includes the park and Hog Island Road...usually four times a month...those interested in seeing what we do should contact me directly) joncarlson@yahoo.com

Black Light and Bugs! August 3, 8:00-10:00pm

Bat wagon September 7, 7:30-9:00pm / October 4, 7:00-9:30pm

Blue Goose Tram Opens for Riding Tours

Memorial Day - Labor Day: Monday, Wednesday, Friday and Sunday at 9:00am; Wednesday at 5:00pm

Labor Day - October 31: Fridays - Sundays at 9:00am

Join Back Bay NWR and False Cape State Park for a wild ride! The tram tour provides access to False Cape through the Refuge with a unique opportunity to view the array of wildlife found in the area, from birds to reptiles. Your tram driver will provide interpretation along the way, discussing the wildlife and history of both the refuge and state park. The trip includes an optional one-mile hike (round-trip) to the historic Wash Woods cemetery site. Morning trams are first-come, first-served. To reserve a seat on the Wednesday evening trams during the summer call False Cape State Park at (757) 426-7128. Don't forget your binoculars and camera!

The Blue Goose Tram runs April - October. The tram leaves from Back Bay NWR (4005 Sandpiper Road) at 9:00am and returns at 1:00pm. No reservations are necessary for these morning trips; the tram is first-come, first-served. We recommend

arriving by 8:45am.

For the special Wednesday evening trams (running Memorial Day - Labor Day) a reservation is required and can be made by calling False Cape State Park at (757) 426-7128.

The tram costs \$8 per person.

Tram payments can only be made in cash or check; credit cards are not accepted.





Discovery Lab at VIMS – Invertebrates

Tuesday, July 9, 2019

Virginia Institute of Marine Science, Gloucester Point

Invertebrates are animals that do not have a backbone. They represent 97% of all animal species on Earth, and come in an amazing variety of forms. Join us as Jenny Dreyer of VIMS uses the institute's marine invertebrate collection to showcase different groups of these amazing creatures. Attendees will get hands-on experience with both live and preserved invertebrates. Reservations to this free, family-friendly event are required due to limited space. Visit www.vims.edu/events or call 804-684-7061 to register.

After Hours Lecture – Fishy Interactions: Understanding the fish community in Chesapeake Bay

Thursday, July 25, 7:00 PM

Virginia Institute of Marine Science, Gloucester Point

Since 2002, the Multispecies Fisheries Research Group at VIMS, led by faculty member Dr. Robert Latour, has been working to create a complete picture of how fishes in the Chesapeake Bay and along the Atlantic Coast interact with each other and their environment. Throughout the year, researchers in this group survey and collect fishes in the bay and along the coast in an effort to understand the seasonal distribution of fishes, the age structure of fish populations, and who eats who in the marine food web. Join us as Dr. Latour shows us how to tell the age of a fish, what you can learn from looking at stomach contents, and why the information his program collects is vital to ensure the fishes and ecosystems we care about and rely on continue to thrive. Registration for this free public lecture is required due to limited space. Visit www.vims.edu/events or call 804-684-7061 to register. If you cannot attend in person, this lecture will be offered as a live-streamed webinar. Register for the webinar at the link above.

Public Tours of VIMS

Tuesdays in July (except July 2), 10:00 AM – 12:00 PM

Virginia Institute of Marine Science, Gloucester Point

Join us for a tour of VIMS! During this 2-hour guided tour you will receive an overview of VIMS, a guided tour of our Visitors Center, and you will visit two of our research laboratories where you will talk with our scientists. Each lab features different labs, so sign up for more than one! Tours are free but reservations are required (ages 9 and up welcome). Visit www.vims.edu/events or call 804-684-7061 for more info.

The Hidden Life of Trees

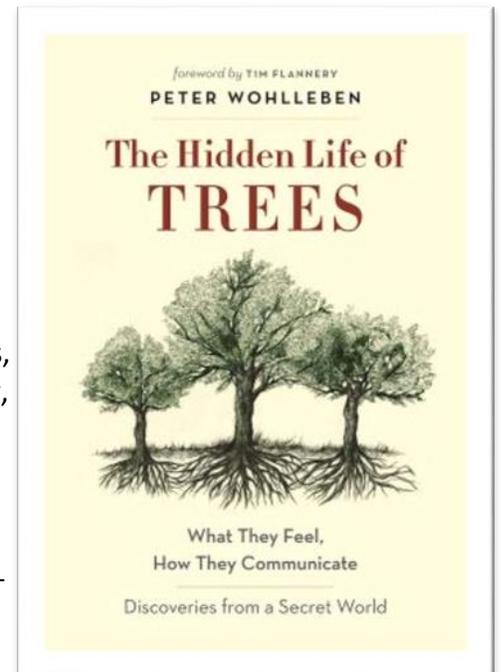
What they Feel, How They Communicate

Discoveries from a Secret World

By: Peter Wohlleben

This book is an eye opener for people who already love trees and for those who take them for granted. The author explores topics such as, The Language of Trees, Love, Forest Etiquette, Trees Aging Gracefully, Community Housing Projects, Street Kids, and Why Is The Forest Green? This is just to name a few.

I personally have always loved trees. It was not until I became a Master Naturalist, that I learned how much I did not know. Peter Wohlleben has spent over twenty years working in forestry in Germany. You can tell the reverence he has for a tree after the first chapter. I might hazard to say that if you read this book you will not look at trees the same - ever!



Recommended by Linda Madra

Great *January Sky Show*

Submitted by Lynne A-Adams

Although the wind was frigid, the Sunday night (Jan.20) sky was clear and perfect in my area for star gazing (Big Dipper, Orion, Sirius, etc.) The big event happened late in the night, but it was soooooo worth staying up for! The sun, earth, and moon aligned (syzygy) for a marvelous Total Lunar Eclipse.



Image sourced from CNN

As explained by Earth Sky:

The earth blocks sunlight from totally reaching the moon, but we can still see the moon as the earth's atmosphere bends sunlight, indirectly lighting up the moon's surface. The red/orange glow is created, thus the Blood Moon, aka the Wolf Moon. The yellow, orange, and brown variations result from dust particles and clouds affecting the color wavelengths.

Cindy Edwards awarded the Virginia Lakes & Waterways Association Scholarship kindly thanks Michelle Prysby, Program Director.

Sent: Thursday, January 31, 2019, 10:10:52 PM EST

Subject: VLWA Scholarship

Hi Michelle,

It was with great pleasure that I received the VLWA (Virginia Lakes & Waterways Association) Scholarship. Going through Cohort VII training was a very rewarding educational experience. Having gone through the classes and field trips, I realized just how much volunteering to enhance and preserve our natural resources means for our future and our children's future. My volunteer time and continuing education time was done, not only to earn my hours; but, it was done with a conscious effort from the heartfelt desire to serve and preserve our natural community. I am so honored to have joined such a fine organization - Historic Southside Chapter VMN! Volunteering means giving back - something we should all find satisfying.

Cindy Edwards

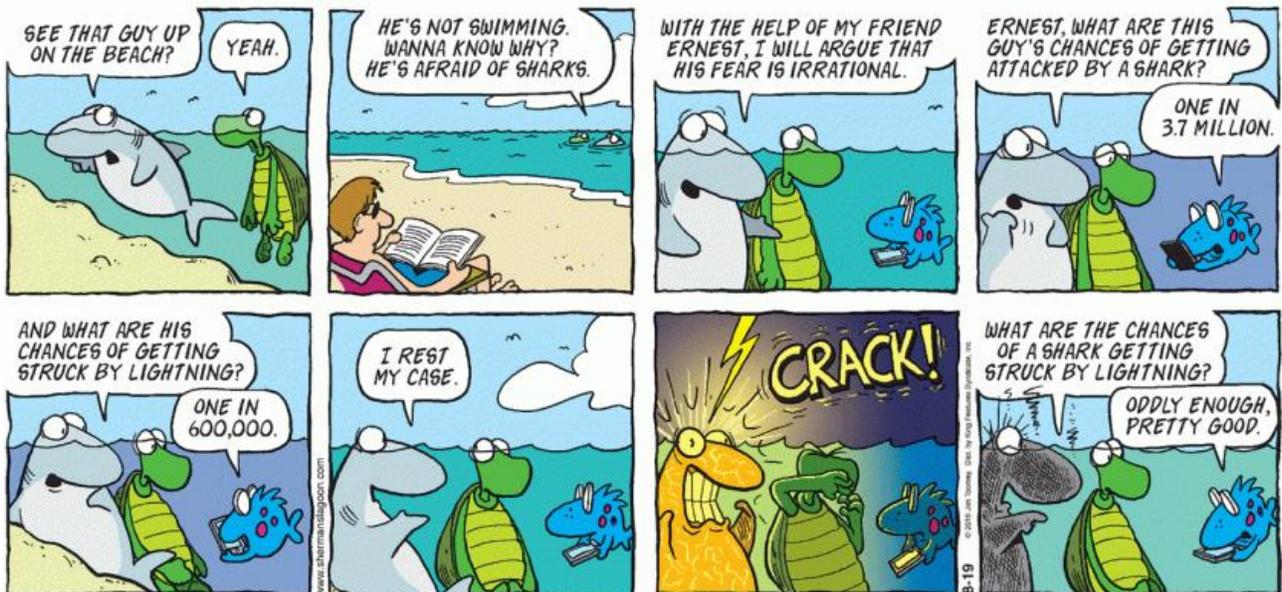
Co-President Historical Southside VMN



**Virginia
Master
Naturalist**



This is an Eyed Click Beetle that was walking in my yard. Susan Andrews



Jim Toomey Sherman's Lagoon

Prothonotary Warbler moves in. Contributed by Wayne Jones

We were lucky to have a Prothonotary Warbler make a nest in our new birdhouse. A friend made the house and this was the first year we used it. I'm wondering if the cylindrical shape is attractive to them since they like making nests in hollow snags. It's made from fired clay.

I got home from work one day in mid June and one Prothonotary fledgling was in the tree learning to fly. I only saw the one but maybe there were more and he was the last to leave. Mum and dad were flying back and forth feeding and encouraging him to fly. Eventually they all headed off to the end of our garden where we have a pond. Since then I continue to see them in the backyard.



Japanese Stiltgrass Project

The final Wrap up

In 2013 VMN was awarded a National Science Foundation Grant to develop a training module for volunteers designing a citizen science project. Historic Southside was one of two chapters selected to work with David Mellor and participate in the development process and were then further selected to put the training into practice. Our project was to evaluate methods of controlling Japanese Stiltgrass (*Microstegium Vimineum*) in the Piney Grove Nature Preserve. If this invasive grass were to spread throughout the preserve it could threaten the endangered Red Cockaded Woodpecker by eliminating its food sources. We thank Bobby Clontz for getting approval for this project.



Anna counting seedlings

Many chapter members helped at different stages of this project and we thank you all. Special thanks to Jim and Carol Evans (who have since moved to the Richmond chapter), John Bunch, Dick Gilbert and Steve Turner for always being there when needed. Past members Karen

and Anna Conley also made a major contribution by studying the germination period for stiltgrass. This entailed counting emerging seedlings every two weeks from April to June, a mind numbing task as thousands of seedlings were counted each time.

We looked at several methods of eradicating the stiltgrass including Roundup, Torching, delimiting by removing dead leaf detritus and combinations of these. After two years of testing we could confirm that glyphosate (Roundup) treatment was the only practical method that could be applied in the preserve setting. We then embarked on a new series of test in 2016 and 2017 to determine the optimum time of year to apply glyphosate. We have continued observing these later test plots into 2019 so we could see if the stiltgrass, once eliminated, would reestablish itself from residual seed left in the soil.



Bobby Clontz torching test plots

Bobby Clontz has approved the report and committed to spraying all affected areas in June as recommended.

During the 6 years of trials we have worked closely with Jeff Derr, head of the Virginia Tech Agricultural Research Station on Diamond Spring Road, Va Beach.

Continues

He had advised us our work is unique in its scope and duration and worthy of publication in research magazines. He knows of no other multi-year eradication field study on stiltgrass, especially one that also looks at regrowth rates as well. Sorting all the data and writing the report has been the hardest part, but it will be worth it if we can get published. It will also help if this alerts the scientific community that Master Naturalists can make valuable contributions with the right encouragement and support.

In 2014, our Chapter received special recognition at the annual VMN convention for the “Best Citizen Science Project”.

So what are our conclusions?

If you spray stiltgrass before June you are wasting your time as new seeds will sprout.

Spray in mid June and you will kill all active seeds. Do this in the following June as well and you should kill off any remaining seeds that have sprouted from the residual seedbank of prior years.

Spraying after July is too late as seed may have already formed and will survive the treatment.

Roundup is very effective on stiltgrass and we have found that using it at half of the minimum recommended dose will suffice. This also has the advantage that a lot of native vegetation will survive and reestablish itself.



Before June Roundup application



After June Roundup application - note other plants survive

Submitted by:

Geoff Payne, June 2019



Had a great concrete leaf class on Saturday (June 8th) with a very creative bunch of folks. Too much fun.

Beth Aberth

Windsor Castle Park Facebook posts from John Bunch

March 9

It was a very nice turnout for the Long Leaf Pine planting preparation today at Windsor Castle Park. And add to that, the posting of signage along the trails. That required some considerable post hole digging. Kudos goes out to Randy Dove with his gasoline powered auger which saved us from having to do a lot of manual post hole digging. Thanks to all who showed up and for the great organization put forth by Henry and Bev.



March 12

Monday was the day for the ceremonial planting of the Long Leaf Pines at Windsor Castle Park. Henry McBurney of our chapter played the lead role in making this all happen. With him is Amy Novak, the Smithfield Parks and Rec Director. The second photo shows Bobby Clontz of the TNC planting the pine with the Mayor of Smithfield, Carter Williams, looking on to the left. To the right Rebecca Wilson of DCR is holding pines for give-away.



Longleaf pine project begins

By Frederic Lee Staff writer for The Smithfield Times

Wed., Mar.13, 2019

The Virginia Master Naturalists program began planting nine longleaf pine trees at Windsor Castle Park and is formulating a plan to develop more there: The park project application, approved by Smithfield Town Council on March 5 includes the designation of a 3,600-square-foot section of land to the nine pines, enclosed by a protective, split rail fence. A spur trail leading up to the plot and an informational sign explaining the historical significance of the trees are also included in plans.

"There is an effort underway that began some 70 years ago to reintroduce these native trees back into Virginia, so that we can enjoy this lost heritage," said Henry McBurney representing the Virginia Master Naturalists' Historic South- side Chapter at the Feb. 26 town Parks and Recreation Committee meeting. He added that in colonial times, longleaf pines populated 1.5 million acres in Virginia and were used for shipbuilding and the manufacture of tar, pitch and turpentine.

According to the National Wildlife Federation, the geographic range of long- leaf pines once extended from southeastern Virginia to Florida, but now they are only found within small patches within this range. The Virginia Department of Forestry donated five of the nine pines, according to McBurney, The Virginia Master Naturalists will plant the seedlings and build the fence, according to McBurney and the project application. Smithfield Mayor Carter Williams said that about 10 years ago, the Town Council voted to designate Windsor Castle Park land at the corner of Jericho Road and Cedar Street for longleaf pines at the request of a resident. Since that project never came to fruition, Williams expressed that he'd like to combine the two projects into one. "I'll take some initial steps to try to put together a concept to develop that big corner," McBurney responded. "What sets the longleaf pine apart from all of its neighbors is its impressive size," said McBurney; adding that they can grow to be more than 100 feet and live longer than 400 years.

Additionally, longleaf pines require direct sun light to survive, and once they've grown out of the seedling stage into the "grass" stage, they're fire resistant. Therefore, the pines thrive in environments regularly subjected to fire since it kills other plants in competition for sunlight.

Fish in the River; Fish in the Box

The Nansemond River Preservation Association held an experts' talk on the fish in the James River and Chuckatuck Creek last evening —on the eve of Halloween. I don't know yet how scary it was. We'll report later on. This report on fish in the river is from people who do their sampling with hook and line— not electroshock equipment.

A fishing buddy of mine lives on the shore of the James River just east of the mouth of the Pagan. He fishes off his dock with some regularity. And this is basically his report.

First, some positive signs that don't deal with fish. He has a pair of river otters who live in his granite bulkhead. And last week he saw a pod of 50 dolphins or so in the James, some only 100 yards offshore. He had dolphin all summer, but this was his biggest pod of the year. So what? you may ask. Both animals will not live or feed in polluted water. Hence, ergo, and therefore— the James must be pretty clean and healthy. The ospreys are gone for the winter, but on my recent visit we saw a mature bald eagle. Another plus! But I digress. Back to fishing.

The river is full of three inch spot. Any bite of bloodworm—even fishbite bloodworm— will catch you some. Now I agree that a three inch spot will not feed the family, but those they attract will. Some of the miscellaneous species he has been getting in the past few weeks... two school stripers, just big enough to be legal... two roundheads of eating size— likewise delicious.... one croaker, also delicious. The interesting thing about this summer holdover was his size— fifteen inches and one pound, nine ounces. I haven't caught one that big in three years. So these are the odd interlopers— but what are the main species?

In the past two weeks he has caught about thirty speckled trout. Only half were keeper size, but that's still a lot of meat. And it's good eating! He's using a regular hi-lo rig with small hooks with bloodworm, crab fishbites, or spot fillets as bait. Speckled trout have notoriously soft mouths, so they have to be brought in gently— don't horse them.

Even more plentiful are the blue catfish. They average about fourteen inches, but some run five or six pounds. He averages 10 or 15 in an evening, The action is great even if you don't want the meat. With trout, rock, roundhead, etc., he's not keeping cats unless he has a request for some. The same rig and baits apply, with spot fillets often the top producer. These fish should be available for most of the winter.

One species noticeably absent is the puppy drum. Generally from now till Christmas we might get a few every evening. So far this year, none. I'll ask the experts why.

So the overall report: action pretty good, species variety good, with one major exception. But it's a lovely fall, the stingrays and skates are gone, The pinhead croaker are gone, and there are very few bait-stealing crabs. Go fishing!

By Biff and Susan Andrews

The Good, The Bad, and The Ugly

Fall has fallen, and we're back outside checking on our favorite haunts. Visits to Merchants Millpond State Park in Carolina and the Great Dismal Swamp this past weekend revealed some of the best and worst of nature's traits and humankind's behavior— not to mention the ugliest.

THE GOOD— At Merchants Millpond State Park, we saw the best of what parks can offer. There were young families with running kids and backpacked kids and dogs and...— all having a great time outdoors as well as in the Visitor's Center stuffed with stuffed bears and possums and reptiles and birds, etc. There was a 20-something handsome young man taking a 20-something special needs girl on a canoe ride. She was delighted. There was a grizzled old guy shepherding a bunch of young kayakers across the pond. People were renting these craft, but across the lake there was a boat ramp crammed with parents and kids launching their own craft— the kids appropriately attired in life vests. In the Visitor Center we bought \$10 walking sticks for our 89-year old parents, and away we went on a lovely walking trail lined with ferns and Bald Cypress. A good time was being had by all. There was no litter. The Visitor Center is a "green building," which is a lesson in itself, and everything was positive, positive, positive.

THE BAD— The following day we visited the Great Dismal Swamp at the Jericho Ditch. We love the swamp, especially after the flies are gone. It was its usual resplendent self with blue and yellow wildflowers and Asters and incipient fall foliage. So what was the Bad? The ditches are full of invasive grasses such that it's impossible to see the clear juniper water. It did not look like alligator grass to us, but it's obviously a species that has taken over the swamp. We are used to seeing turtles, otters, and bladderwort— but not anymore. Mind you, it doesn't appear to be the fault of humans. But it can't be sprayed without harming other sensitive species. We haven't been down to the George Washington Ditch or the Railroad Ditch recently, but we suspect they are similarly afflicted. It's a bad situation.

THE UGLY— On the road in to the Jericho Ditch parking area, there are several small swampy areas on the south side that are always interesting to view. Various mosses, flowering bladderworts, and turtles inhabit them, and there are dozens of species of birds in the trees above. Often you will see birders parked next to these ponds with binoculars trained upwards looking for Prothonotary warblers, Swainson's warblers, or many other exotic species. But we didn't need to use binoculars to spot the 24 tires that someone had dumped there. Now, a week ago there was an amnesty day on tire disposal at Lowe's, but I think commercial disposals were prohibited. Anyone who has 24 tires is probably commercial. Still, just dumping tires into an ecologically sensitive National Wildlife Preserve is not just illegal but bespeaks callous disregard for the planet. Whoever did it has no soul.

So there you have it — the Good, the Bad, and the Ugly all outdoors in one weekend. We applaud the good— and greatly admire families and friends who take others outdoors into nature. We deplore the invasive species trend in places we have not seen them in the past 35 years. Keep in mind that all of the Suffolk Lakes are suffering from invasions of Alligator Weed. Not much can be done. But the Ugly! Some lout, cretin, and soul-less idiot has dumped tires in the swamp rather than pay a few bucks each for the disposal fee. Money over morality — again.

By Biff and Susan Andrews

Modeling a better, wetter swamp

By Alex Perry, Journalist for the Suffolk News Herald

December 28th 2018

A new computer model will help manage water levels in the Great Dismal Swamp National Wildlife Refuge with more precision, helping reduce the risk and harm of wildfires and increasing biodiversity in the refuge.

Congress established the Refuge in 1974, after the Great Dismal Swamp was altered by centuries of draining, wildfires, construction and timber harvesting. The refuge currently encompasses 112,000 acres managed by the U.S. Fish and Wildlife Service in southeastern Virginia and northern North Carolina, according to a report prepared by the U.S. Geological Survey.

The swamp was drained in centuries past to create dry conditions for loggers, and an extensive network of roads and ditches was constructed. According to the report, this network fundamentally changed the swamp's hydrology, which harmed the trees, lowered the land-surface elevation and increased the risk of severe wildfires.

The peat soil became more flammable and less able to hold water as it dried up, so approximately 50 water control structures were replaced and installed in ditches across the refuge to restore the soil.

These act as adjustable dams, each made of corrugated aluminum culvert material, according to the U.S. Geological Survey. Six-inch-thick aluminum boards called "stop-logs" are placed in the structure for water level adjustments. "They create a barrier to water movement in the ditch, and the height of the water in the ditch is controlled by the number of boards we put in the structure," said Fred Wurster, U.S. Fish and Wildlife Service hydrologist.

Put simply, more stop-logs mean more water is kept in the swamp, and vice versa. This will remoisten the peat soil and reduce the risk of forest fires. Refuge wildlife and vegetation will also benefit from the improved wetlands. "It allows us to manage water levels for forest health and to reduce the possibility of wildfires," Refuge Manager Chris Lowie said. It will also reduce the overall impact of wildfires that do occur.

But there are ripple effects when directing water flow, and the flat and thickly-forested swamp poses another challenge for refuge staff. "If you're trying to understand how water moves in the swamp from the ground, it's tough to get perspective," Wurster said. "You can't stand up high, look over the whole swamp and see where water is coming and going. To manage and understand water flow patterns in the Great Dismal Swamp, you need to step back and look at it at a larger scale."

That scale is illustrated in a three-dimensional, numerical model developed through a U.S. Geological Survey study with the help of the Fish and Wildlife Service. U.S. Geological Survey first built a digital version of the swamp — including topography, peat thickness, ditches and roads — then ran a computer simulation to calibrate the model based on average spring hydrologic conditions from the years 2005 through 2015. With this model, simulations of water-management scenarios can be used by refuge staff to better inform their water-management decisions.



U.S. Fish and Wildlife hydrologist technician Karen Balentine and project manager David Byrd demonstrated how to use one of the water control structures at the Great Dismal Swamp National Wildlife Refuge back in May 2017.

“It provides that kind of geographic perspective to get a sense of the area that will be influenced by a particular management action,” Wurster said, adding that a single structure has the potential to influence water levels over miles.

It’s not a perfect representation, he said, but it’s still a major step forward in predicting the effects of a water-management action, rather than waiting several years to see the results. “The model isn’t going to give us all the answers to manage this place, but it is an important tool that will improve our ability to manage the place,” he said.

Be on the LOOK OUT for
SPOTTED LANTERNFLY
(*Lycorma delicatula*)



Native to China and was first detected in Pennsylvania in September 2014. Spotted lanternfly feeds on a wide range of fruit, ornamental and woody trees, with tree-of-heaven being one of the preferred hosts. Spotted lanternflies are invasive and can be spread long distances by people who move infested material or items containing egg masses. If allowed to spread in the United States, this pest could seriously impact the country's grape, orchard, and logging industries.





Thanks for reading!!!

Please send content for the next newsletter to:

Wayne Jones wjones@suffolkva.us

Leora DonPorter club1060@gmail.com